

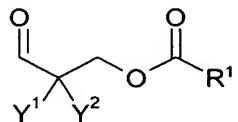
Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A polyaldimine which is obtainable from
at least one polyamine **A** having aliphatic primary amino groups

and

at least one aldehyde **B** of the formula



where Y¹ and Y² either

independently of one another are an alkyl, aryl, arylalkyl group, a substituted alkyl, a substituted aryl, an alkyl containing one or more heteroatoms, an aryl containing one or more heteroatoms, a substituted alkyl containing one or more heteroatoms, or a substituted aryl containing one or more heteroatoms;

or Y¹ and Y²

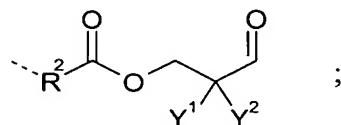
are connected to one another to form a carbocyclic or heterocyclic ring which has a ring size of between 5 and 8 atoms;

and

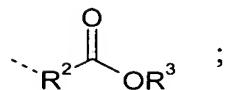
R^1 stands either

for a linear or branched alkyl chain having 11 to 30 carbon atoms, with or without at least one heteroatom, -or for a singly or multiply unsaturated linear or branched hydrocarbon chain having 11 to 30 carbon atoms;

or for



or for



where R^2 is a linear or branched or cyclic alkylene chain having 2 to 16 carbon atoms, with or without at least one heteroatom, or is a singly or multiply unsaturated linear or branched or cyclic hydrocarbon chain having 2 to 16 carbon atoms,

and

R^3 is a linear or branched alkyl chain having 1 to 8 carbon atoms;

wherein the polyimide is odorless.

2. (Previously Presented) The polyimide as claimed in claim 1, wherein the

polyamine **A** having aliphatic primary amino groups is selected from the group consisting of 1,6-hexamethylenediamine, MPMD, DAMP, IPDA, 2,2,4- and 2,4,4-trimethylhexamethylenediamine, 4-aminomethyl-1,8-octanediamine, 1,3- and 1,4-xylylenediamine, 1,3- and 1,4-bis(aminomethyl)cyclohexane, bis(4-aminocyclohexyl)methane, bis(4-amino-3-methylcyclohexyl)methane, 3(4),8(9)-bis(aminomethyl)tricyclo[5.2.1.0^{2,6}]decane, 1,2-, 1,3- and 1,4-diaminocyclohexane, polyoxyalkylene polyamines having in theory two or three amino groups, and also mixtures of two or more of the aforementioned polyamines.

3. (Previously Presented) The polyaldimine as claimed in claim 1, wherein the aldehyde **B** used for preparing the polyaldimine is obtainable by means of an esterification reaction of a β -hydroxy aldehyde with a carboxylic acid, the β -hydroxy aldehyde being prepared, *in situ* if appropriate, from formaldehyde, and/or paraformaldehyde, and from a second aldehyde, this second aldehyde being selected from the group consisting of isobutyraldehyde, 2-methylbutyraldehyde, 2-ethylbutyraldehyde, 2-methylvaleraldehyde, 2-ethylcaproaldehyde, cyclopentanecarboxaldehyde, cyclohexanecarboxaldehyde, 1,2,3,6-tetrahydrobenzaldehyde, 2-methyl-3-phenylpropionaldehyde, 2-phenylpropionaldehyde and diphenylacetaldehyde.

4. (Previously Presented) The polyaldimine as claimed in claim 3, wherein the carboxylic acid used for preparing the aldehyde **B** is selected from the group consisting of lauric acid, myristic acid, palmitic acid, stearic acid, oleic acid, linoleic acid, linolenic acid, succinic acid, adipic acid, azelaic acid and sebacic acid.

5. (Previously Presented) The polyaldimine as claimed in claim 1, wherein the aldehyde **B** is present stoichiometrically or in a stoichiometric excess in relation to the primary amino groups of the polyamine **A**.

6. (Previously Presented) The polyaldimine as claimed in claim 1, wherein $Y^1 = Y^2 =$

methyl.

7. (Previously Presented) A process for preparing a polyaldimine as claimed in claim 1, comprising reacting an aldehyde **B** with a polyamine **A** having aliphatic primary amino groups.

8. (Previously Presented) The process for preparing a polyaldimine as claimed in claim 7, further comprising a step of preparing an aldehyde **B** from a carboxylic acid and a β -hydroxy aldehyde, the β -hydroxy aldehyde being prepared from formaldehyde, and/or paraformaldehyde or oligomeric forms of formaldehyde, and from a second aldehyde.

9. (Previously Presented) The process for preparing a polyaldimine as claimed in claim 7, further comprising a step of preparing an aldehyde **B** from a carboxylic acid and 3-hydroxypivalaldehyde, 3-hydroxypivalaldehyde being prepared from formaldehyde, and/or paraformaldehyde, and from isobutyraldehyde.

10. (Previously Presented) The process for preparing a polyaldimine as claimed in claim 7, wherein no solvents are used during the preparation of the polyaldimine and/or of the aldehyde.

11-13. (Canceled)

14. (Previously Presented) A process for hydrolysis of a polyaldimine as claimed in claim 1 comprising bringing the polyaldimine into contact with water in the gaseous aggregate state whereby aldehyde **B** is released.

15. (Previously Presented) A hydrolysis process characterized in that a polyaldimine as claimed in claim 1 is brought into contact with water in the form of a water-containing component or a water-releasing component, and aldehyde **B** is released.

16. (Previously Presented) The hydrolysis process as claimed in claim 14, wherein the polyaldimine is present in a composition which comprises components that are reactive toward amines.

17. (Previously Presented) The polyaldimine as claimed in claim 1, characterized in that R¹ in the aldehyde **B** is a linear or branched alkyl chain having 17 to 30 carbon atoms.